says: "It is a great advantage for the sure understanding of abstractions if one seeks to make of them the most concrete picture possible, even when the doing so brings in many an assumption that is not exactly necessary." Just how much of this useful theory is to become the common property of all men it is impossible to say. For one thing, the theory is not by any means fixed and may not be for a century to come, and no one but the most determined specialist can be expected to appropriate and use the more complex theories which depend upon the keenest mechanical sense, the sharpest algebraic faculty, the strongest geometrical imagination and the most devoted study; but there is a great and growing body of simple conception and theory which can and does represent to the understanding a vast array of fact. Every one should know that the physicist's idea of a thing such as a gas, an electric current, or a beam of light comes very near to being a working model of the thing. The elements out of which such models are made are purely notional, and although the physicist habitually speaks of them in objective terms for the sake of concreteness and clearness, it is of the utmost importance that the thought be chiefly directed to the physical facts which are represented and not to the models themselves. Thus the chemist may speak of the tetrahedral carbon molecule with assymetrically attached molecular groups, while the thought is directed chiefly to those remarkable physical properties of sugar and tartaric acid which are intended to be represented.

There is a tendency among reflecting men to confuse the boundaries between our logical constructions and the objective realms which they represent to the understanding. In fact, Münsterberg maintains that this confusion is the gravest danger of our time. It seems to us that these logical constructions constitute the noxious gases mentioned by Professor Woodrow Wilson as escaping from our laboratories, and that they become noxious by confusion and misuse. The old idolatry is the worship of external form—imagine a remote ancestor worship fully contemplating the newly invented club instead of using it—and the new is the contemplation of our logical constructions in an aspect in which they are not real, a vaporous idolatry which is frightfully prevalent.

We are impressed more and more every day with the fact that the most satisfactory specialist to talk with is the biologist. His knowledge is not represented to his mind by means of that mathematical-mechanical system of conceptions which is the basis of all our knowledge in physical science, but it approaches art in its close association with external form. Conversation with a physicist, however, is very like looking into the mechanism of a Mergenthaler type-casting machine with the machine out of sight, feasible enough among designers and builders, but scarcely a satisfactory basis for the flow of thought when one party in the conversation happens to be unfamiliar with and perhaps not interested in the mechanism in question. Nevertheless a seriously minded physicist cannot help feeling mortified when he sees a colleague of Professor Starr's standing examining a more or less fanciful, inoperative, and obsolete pea-shooter with the pleasurable conviction that he is unraveling the intricacies of a complicated mechanism of the latest and most approved construction.

W. S. Franklin.

SCIENTIFIC JOURNALS AND ARTICLES.

The *American Anthropologist* for April–June, which has just reached us, contains the following articles:

'The Owakülti Altar at Sichomovi Pueblo': J. Walter Fewkes.

'Chalchihuitl in Ancient Mexico': Zelia Nuttall.

'Notes on the Alsea Indians of Oregon': Livingston Farrand.

'Kootenay Group-drawings': Alexander F. Chamberlain.

'Ethnology in the Jesuit Relations': Joseph D. McGuire.

'Rare Books relating to the American Indians': Ainsworth R. Spofford.

'Summary of the Archeology of Saginaw Valley, Michigan': Harlan I. Smith.

'Mummification, especially of the Brain': D. S. Lamb.

'Decorative Symbolism of the Arapaho' (with plates V. and VI.): A. L. Kroeber.

'Initiation Ceremonies of the Wiradjuri Tribes': R. H. MATHEWS.

'The Development of Illumination': WALTER HOUGH.

THE contents of the *American Journal of Science* for August are:

'Experiments on High Electrical Resistance,' Part II.: O. N. ROOD.

'Mineralogical Notes': A. J. MOSES.

'Motion of Compressible Fluids': J. W. DAVIS.

'Action of Sodium Thiosulphate on Solutions of Metallic Salts at High Temperatures and Pressures': J. T. NORTON, JR.

'Secondary Undulations shown by Recording Tide-gauges': A. W. DUFF.

'Mathematical Notes to Rival Theories of Cosmogony': O. FISHER.

'Studies of Eocene Mammalia in the Marsh Collection, Peabody Museum': J. L. WORTMAN.

'Electromagnetic Effects of Moving Charged Spheres': E. P. ADAMS.

'The Nadir of Temperature and Allied Problems': J. DEWAR.

The American Geologist for July contains a 'Sketch of the Life and Work of Augustus Wing,' by Henry M. Seeley. In this article the work of Mr. Wing, the teacher and preacher, in solving the early problems in New England geology is set forth. A portrait accompanies the article. 'Beach Structures in the Medina Sandstone,' is discussed by Professor H. L. Fairchild. The Medina sandstone is described as shallow water deposits, following the conclusions of Dr. James Hall and controverting the theory of Dr. Gilbert, who recently maintained that certain structures in said sandstone are giant ripples formed in deep ocean. The writer compares the structures in question to the beach formations on Lake Ontario at the present time. The article is accompanied by five plates from photographs. 'The Michipicoten Huronian Area,' by S. B. Wilmott, describes an area north of Lake Superior. It is accompanied by a geological map of the region. Mr. Oscar H. Hershey discusses 'The Age of the Kansas Drift Sheet,' and gives reasons why the Kansas drift as well as others of the lower Mississippi is a very old one. 'The Georgia Bauxite Deposits: Their Chemical Constitution and Genesis,' by Thomas L. Watson, is accompanied by a plate showing the distribution of that mineral in Georgia. 'The Age of the Kansas-Oklahoma Redbeds' is discussed by J. W. Beede. The author put the deposits in question in the Permian. This paper is followed by 'A Short Discussion of the Origin of the Coal Measure Fire Clays,' by T. C. Hopkins, and the usual Comments and Reviews.

SOCIETIES AND ACADEMIES.

SECTION H. ANTHROPOLOGY. TITLES FOR PRESENTATION AT THE DENVER MEETING.

'Sculptured Stone Images of Man by the Aborigines in Nicaragua': J. CRAWFORD.

(1) 'The Stanley McCormick Hopi Expedition of 1901'; (2) 'The Sacred Bundle of the Osage'; (3) 'Games of the Pawnees'; (4) 'Hand or Guessing Games of the Wichitas': GEORGE A. DORSEY.

'Influences of Racial Characteristics on Socialization': FRANK W. BLACKMAN.

'Exhibit of curves of speech': E. W. SCRIPTURE.

'The Physical Characters of the Various Pueblo Indians, including the Mokis and Zuñis': ALËS HRDLICKA.

'Current Questions in Anthropology': W J MCGEE.

'A Plea for Greater Accuracy and Greater Simplicity in the Writings of the Future regarding the American Aborigines': CHARLES E. SLOCUM.

(1) 'The Teaching of Anthropology in the United States'; (2) 'The Anthropological Collections of Yale University Museum'; (3) 'Twenty Years of Section H'; (4) 'The Sherman Anthropological Collection, recently purchased by the Scientific Society of Holyoke, Mass': GEORGE GRANT MACCURDY.

QUOTATIONS.

PRIORITY IN THE DISCOVERY OF THE MALARIAL PARASITE.

AN unfortunate controversy having arisen on the question of priority in the proof of the mosquito theory of the transference of malarial infection, Major Ronald Ross has published some correspondence on the subject which shows that the claims of some of the Italian observers cannot be substantiated ('Letters from Rome on the New Discoveries in Malaria,' 1900). These eight letters were written by Dr. Edmonston Charles, a resident in Rome, to Major Ross, then in India, and date from November 4, 1898, to January 14, 1899; a letter from Dr. Daniels is included, and they are preceded by a critical